

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Cancelled)

2. (Original) A semiconductor device comprising:

a semiconductor substrate;

a plurality of diffusion layer patterns formed on the semiconductor substrate;

an insulation film formed between the plural diffusion layer patterns on the semiconductor substrate; and

a through plug formed to be partly surrounded by the diffusion layer pattern without being in contact with the insulation film and to pass through the diffusion layer pattern and the semiconductor substrate.

3. (Cancelled)

4. (Currently Amended) A semiconductor device as set forth in claim 7 [[1]], further comprising a pattern portion formed above the diffusion layer pattern and/or the insulation film without being in contact with the through plug, the pattern portion using as a material thereof one kind selected from a group consisting of aluminum (Al), tungsten (W), titanium (Ti), copper (Cu), tantalum (Ta), and a chemical compound composed of at least one metal out of aluminum (Al), tungsten (W), titanium (Ti), copper (Cu), and tantalum (Ta).

5. (Original) A semiconductor device as set forth in claim 2, further comprising a pattern portion formed above the diffusion layer pattern and/or the insulation film without being in contact with the through plug, the pattern portion using as a material thereof one kind selected from a group consisting of aluminum (Al), tungsten (W), titanium (Ti), copper (Cu), tantalum (Ta), and a chemical compound composed of at least one metal out of aluminum (Al), tungsten (W), titanium (Ti), copper (Cu), and tantalum (Ta).

6. (Currently Amended) A semiconductor device as set forth in claim 9 [[3]], wherein the at least one of the plural semiconductor chips further comprises a pattern portion formed above the diffusion layer pattern and/or the insulation film without being in contact with the through plug, the pattern portion using as a material thereof one kind selected from a group consisting of aluminum (Al), tungsten (W), titanium (Ti), copper (Cu), tantalum (Ta), and a chemical compound composed of at least one metal out of aluminum (Al), tungsten (W), titanium (Ti), copper (Cu), and tantalum (Ta).

7. (Currently Amended) A semiconductor device ~~as set forth in claim 1, further~~ comprising:

a semiconductor substrate;

a plurality of diffusion layer patterns formed on the semiconductor substrate;

an insulation film formed between the plural diffusion layer patterns on the semiconductor substrate to isolate the plural diffusion layer patterns from one another;

a pattern portion formed above the diffusion layer pattern and/or the insulation film, the pattern portion using as a material thereof one kind selected from a group consisting of aluminum (Al), tungsten (W), titanium (Ti), copper (Cu), tantalum (Ta), and a chemical compound composed of at least one metal out of aluminum (Al), tungsten (W), titanium (Ti), copper (Cu), and tantalum (Ta)[[.]]; and

a through plug formed to be partly surrounded by the insulation film without being in contact with the plural diffusion layer patterns and to pass through the insulation film and the semiconductor substrate, wherein the through plug being [[is]] partly surrounded also by the pattern portion above the diffusion layer pattern and/or the insulation film and being insulated from the pattern portion.

8. (Original) A semiconductor device as set forth in claim 2, further comprising a pattern portion formed above the diffusion layer pattern and/or the insulation film, the pattern portion using as a material thereof one kind selected from a group consisting of aluminum (Al), tungsten (W), titanium (Ti), copper (Cu), tantalum (Ta), and a chemical compound composed of at least one metal out of aluminum (Al), tungsten (W), titanium (Ti), copper (Cu), and tantalum (Ta),

wherein the through plug is partly surrounded also by the pattern portion above the diffusion layer pattern and/or the insulation film.

9. (Currently Amended) A semiconductor device comprising:
a plurality of semiconductor chips, at least one of the plural semiconductor chips
including:

a semiconductor substrate;

a plurality of diffusion layer patterns formed on the semiconductor substrate;

an insulation film formed between the plural diffusion layer patterns on the semiconductor substrate to isolate the plural diffusion layer patterns from one another; ~~as set forth in claim 3, wherein the at least one of the plural semiconductor chips further comprises~~

a pattern portion formed above the diffusion layer pattern and/or the insulation film, the pattern portion using as a material thereof one kind selected from a group consisting of aluminum (Al), tungsten (W), titanium (Ti), copper (Cu), tantalum (Ta), and a chemical compound composed of at least one metal out of aluminum (Al), tungsten (W), titanium (Ti), copper (Cu), and tantalum (Ta);~~[[.]]~~ and

a through plug formed to be partly surrounded by the insulation film without being in contact with the plural diffusion layer patterns and to pass through the insulation film and the semiconductor substrate, wherein the through plug ~~[[is]]~~ being partly surrounded also by the pattern portion above the diffusion layer pattern and/or the insulation film and being insulated from the pattern portion, or a through plug formed to be partly surrounded by the diffusion layer pattern without being in contact with the insulation film and to pass through the diffusion layer pattern and the semiconductor substrate; and

a connecting member electrically connecting the through plugs of the at least one of the plural semiconductor chips to a semiconductor chip of the plural semiconductor chips other than the at least one of the plural semiconductor chips.

10. (Currently Amended) A semiconductor device as set forth in claim 7 [[1]], wherein each of the plural diffusion layer patterns has a metal silicide layer.

11. (Original) A semiconductor device as set forth in claim 2, wherein each of the plural diffusion layer patterns has a metal silicide layer.

12. (Currently Amended) A semiconductor device as set forth in claim 9 [[3]], wherein each of the plural diffusion layer patterns has a metal silicide layer.

13. (Currently Amended) A semiconductor device as set forth in claim 7 [[1]], wherein the through plug has a columnar electric conductor made of copper and an insulation layer made of any one of silicon oxide, silicon nitride, and a combination of silicon oxide and silicon nitride, the insulation layer surrounding the columnar electric conductor.

14. (Original) A semiconductor device as set forth in claim 2, wherein the through plug has a columnar electric conductor made of copper and an insulation layer made of any one of silicon oxide, silicon nitride, and a combination of silicon oxide and silicon nitride, the insulation layer surrounding the columnar electric conductor.

15. (Currently Amended) A semiconductor device as set forth in claim 9 [[3]], wherein the through plug has a columnar electric conductor made of copper and an insulation layer made of any one of silicon oxide, silicon nitride, and a combination of silicon oxide and silicon nitride, the insulation layer surrounding the columnar electric conductor.

16. (Currently Amended) A semiconductor device as set forth in claim 7 [[1]], wherein a diameter of the through plug is larger than an interval between adjacent ones of the plural diffusion layer patterns.

17. (Original) A semiconductor device as set forth in claim 2, wherein a diameter of the through plug is larger than an interval between adjacent ones of the plural diffusion layer patterns.

18. (Currently Amended) A semiconductor device as set forth in claim 9 [[3]], wherein a diameter of the through plug is larger than an interval between adjacent ones of the plural diffusion layer patterns.

19. (Currently Amended) A semiconductor device as set forth in claim 7 [[1]], wherein a diameter of the through plug is larger than a size of the diffusion layer pattern.

20. (Currently Amended) A semiconductor device as set forth in claim 9 [[3]],

wherein the ~~[[a]]~~ through plug is formed to be partly surrounded by the insulation film without being in contact with the plural diffusion layer patterns and to pass through the insulation film and the semiconductor substrate, the through plug being partly surrounded also by the pattern portion above the diffusion layer pattern and/or the insulation film and being insulated from the pattern portion, and

wherein a diameter of the through plug is larger than a size of the diffusion layer pattern.

21. (New) A semiconductor device as set forth in claim 2, wherein the insulation film is formed to isolate the plural diffusion layer patterns from one another.